3

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Improvements to Roads and Drains at Srirampura, MCECHS Layout and Surrounding areas in Ward No.05

DETAILED ESTIMATES

Estimated Cost
Rs. 200.00 Lakh

Office of the
Executive Engineer
BYATARAYANAPURA DIVISION
Bruhat Bangalore Mahanagara Palike
Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Byatarayanapura Division

Name of Work: Improvements to Roads and Drains at Srirampura, MCECHS Layout and Surrounding areas in Ward No.05

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
1	**Removing & Refixing stone slabs** of drains and pointing in C.M (1:3) (Page No 27., I.No.5.33 of KPWD S.R 2018-19).								
	Basic rate	105.00							
	6% AW	6.30							
	Sub Total	111.30							
	Bottom Drain Slabs								
	Srirampura								
	Cross Road -1	2	68.00	1.65		224.40			
	Cross Road -2	2	43.00	1.65		141.90			
	Cross Road -3	2	115.00	1.65		379.50			
	Cross Road -4	2	207.00	1.65		683.10			
	MCECHS Layout								
	20th cross	2	140.00	1.65		462.00			
	21st cross	2	126.00	1.65		415.80			
	21st to 25th connecting	2	141.00	1.65		465.30			
	1st cross	2	68.00	1.65		224.40			
	2nd cross	2	79.00	1.65		260.70			
	21st A cross	2	142.00	1.65		468.60			
						3725.70			
	Deduct 30% damaged/missing					1117.71			
						2607.99			
	consider 25%					**652.00**	**Sqm**	**111.30**	**72,567.32**
2	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. **Earthwork excavation by manual means** in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No-143, I.No-19.1)								
	Basic rate	130.00							
	Area weightage 6%	7.80							
	Sub total	137.80							
	Loading and unloading with Lead 5 km	**69.80**							
	Total	**207.60**							
	Desilting								
	Srirampura								
	60 feet Rd	2	133.00	0.40	0.30	31.92			
		2	116.00	0.40	0.30	27.84			
		2	189.00	0.40	0.30	45.36			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
		2	350.00	0.40	0.40	112.00			
		2	127.00	0.40	0.40	40.64			
	Cross Road -1	2	68.00	0.40	0.30	16.32			
	Cross Road -2	2	43.00	0.40	0.30	10.32			
	Cross Road -3	2	115.00	0.40	0.30	27.60			
	Cross Road -4	2	207.00	0.40	0.30	49.68			
	MCECHS Layout								
	20th cross	2	140.00	0.40	0.30	33.60			
	21st cross	2	126.00	0.40	0.30	30.24			
	21st to 25th connecting	2	141.00	0.40	0.30	33.84			
	1st cross	2	68.00	0.40	0.40	21.76			
	2nd cross	2	79.00	0.40	0.40	25.28			
	21st A cross	2	142.00	0.40	0.40	45.44			
	Culvert	4	6.00	1.80	1.00	43.20			
						595.04	**Cum**	**207.60**	**123530.30**
3	**Providing granite slabs** of selected quality roughly dressed having a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete. I.No.5.31.1, Page no 27								
	Basic rate	700.00							
	Area weightage 6%	42.00							
	Total	**742.00**							
	from item no.01					1117.71			
						1117.71	**Sqm**	**742.00**	**829340.82**
4	KSRRB M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6** with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18)								
	Basic rate	5115.00							
	6% AW	306.90							
	Sub Total	**5421.90**							
	Culvert	4	6.00	1.80	0.15	6.48			
						6.48	**Cum**	**5421.90**	**35,133.91**
5	KSRB 5.2-3 : **Providing and constructing granite / trap / basalt size stone masonry** in foundation with cement mortar, stone hammered dressed in courses not less than 20 cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13, cement mortar 1:6 KBS 5.1.13 (P.No-25,I No-5.6)								
	Basic rate	4596.00							
	6% AW	275.76							
	Sub Total	**4871.76**							
	Agrahara layout								
	Culvert Wall	8	5.60	0.45	0.80	16.13			
						16.13	**Cum**	**4871.76**	**78,571.75**

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
6	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of Mix 1:2:4** with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No-13,I No-4.6)								
	Basic rate	5422.00							
	6% AW	325.32							
	Sub Total	5747.32							
	Culvert Coping	8	6.00	0.45	0.10	2.16			
	Culvert Vent	4	6.00	0.60	0.15	2.16			
						4.32	**Cum**	**5747.32**	**24,828.42**
7	Providing and Fixing **pre cast covering Slab 250mm thick** made out of M25 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	5418.00							
	Culvert Vent	4	6.00	1.50		36.00			
						36.00	**Sqm**	**5418.00**	**195048.00**
8	KSRRB M300-14. **Excavation for roadwork** in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1km and complete as per specifications.(I No-19.14,P No-143)								
	Basic rate	41.00							
	Area Weightage 6%	2.46							
	Sub total	43.46							
	with Lead 5 km	**12.80**							
	Total	**56.26**							
	Srirampura								
	60 feet Rd	1	133.00	3.00	0.300	119.70			
		1	116.00	7.80	0.300	271.44			
		1	189.00	8.80	0.300	498.96			
		1	350.00	8.70	0.300	913.50			
		1	127.00	8.20	0.300	312.42			
	Cross Road -1	1	68.00	7.50	0.300	153.00			
	Cross Road -2	1	43.00	7.50	0.300	96.75			
	Cross Road -3	1	115.00	2.00	0.300	69.00			
	Cross Road -4	1	207.00	2.00	0.300	124.20			
	MCECHS Layout								
	20th cross	1	140.00	2.20	0.200	61.60			
	21st cross	1	126.00	2.20	0.200	55.44			
	21st to 25th connecting	1	141.00	2.20	0.200	62.04			
	1st cross	1	68.00	2.20	0.200	29.92			
	2nd cross	1	79.00	2.20	0.200	34.76			
	21st A cross	1	142.00	2.20	0.200	62.48			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Berm cutting								
	Srirampura								
	60 feet Rd	2	133.00	0.80	0.200	42.56			
		2	116.00	0.80	0.200	37.12			
		2	189.00	0.80	0.200	60.48			
		2	350.00	0.80	0.200	112.00			
		2	127.00	0.80	0.200	40.64			
	MCECHS Layout								
	20th cross	2	140.00	0.80	0.200	44.80			
	21st cross	2	126.00	0.80	0.200	40.32			
	21st to 25th connecting	2	141.00	0.80	0.200	45.12			
	1st cross	2	68.00	0.80	0.200	21.76			
	2nd cross	2	79.00	0.80	0.200	25.28			
	21st A cross	2	142.00	0.80	0.200	45.44			
						3380.73	**Cum**	**56.26**	**190199.87**
9	Construction of **granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	Basic rate	1882.00							
	Area Weightage 6%	112.92							
	Total	**1994.92**							
	Srirampura								
	60 feet Rd	1	133.00	3.00	0.150	59.85			
		1	116.00	7.80	0.150	135.72			
		1	189.00	8.80	0.150	249.48			
		1	350.00	8.70	0.150	456.75			
		1	127.00	8.20	0.150	156.21			
	Cross Road -1	1	68.00	7.50	0.150	76.50			
	Cross Road -2	1	43.00	7.50	0.150	48.38			
	Cross Road -3	1	115.00	2.00	0.150	34.50			
	Cross Road -4	1	207.00	2.00	0.150	62.10			
	MCECHS Layout								
	20th cross	1	140.00	2.20	0.150	46.20			
	21st cross	1	126.00	2.20	0.150	41.58			
	21st to 25th connecting	1	141.00	2.20	0.150	46.53			
	1st cross	1	68.00	2.20	0.150	22.44			
	2nd cross	1	79.00	2.20	0.150	26.07			
	21st A cross	1	142.00	2.20	0.150	46.86			
						1509.17	**Cum**	**1994.92**	**3010663.44**

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
10	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	Basic rate	1888.00							
	Area Weightage 6%	113.28							
	Total	**2001.28**							
	Srirampura								
	60 feet Rd	1	133.00	3.00	0.225	89.78			
		1	116.00	7.80	0.225	203.58			
		1	189.00	8.80	0.225	374.22			
		1	350.00	8.70	0.225	685.13			
		1	127.00	8.20	0.225	234.32			
	Cross Road -1	1	68.00	7.50	0.225	114.75			
	Cross Road -2	1	43.00	7.50	0.225	72.56			
	Cross Road -3	1	115.00	2.00	0.225	51.75			
	Cross Road -4	1	207.00	2.00	0.225	93.15			
	MCECHS Layout								
	20th cross	1	140.00	2.20	0.225	69.30			
	21st cross	1	126.00	2.20	0.225	62.37			
	21st to 25th connecting	1	141.00	2.20	0.225	69.80			
	1st cross	1	68.00	2.20	0.225	33.66			
	2nd cross	1	79.00	2.20	0.225	39.11			
	21st A cross	1	142.00	2.20	0.225	70.29			
						2263.75	**Cum**	**2001.28**	**4530392.60**
11	KSRRB M500-6. Providing and **applying primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	Basic rate	27.00							
	Area Weightage 6%	1.62							
	Total	**28.62**							
	Srirampura								
	60 feet Rd	1	133.00	8.20		1090.60			
		1	116.00	7.80		904.80			
		1	189.00	8.80		1663.20			
		1	350.00	8.70		3045.00			
		1	127.00	8.20		1041.40			
	Cross Road -1	1	68.00	7.50		510.00			
	Cross Road -2	1	43.00	7.50		322.50			
	Cross Road -3	1	115.00	2.00		230.00			
	Cross Road -4	1	207.00	2.00		414.00			
	MCECHS Layout								
	20th cross	1	140.00	2.20		308.00			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	21st cross	1	126.00	2.20		277.20			
	21st to 25th connecting	1	141.00	2.20		310.20			
	1st cross	1	68.00	2.20		149.60			
	2nd cross	1	79.00	2.20		173.80			
	21st A cross	1	142.00	2.20		312.40			
						10752.70	**Sqm**	**28.62**	**307742.27**
12	KSRRB 500-2. **Cleaning the existing black topped surface** with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. (P.No-158,I No-21.12,KPWD SR 2018-19)								
	Basic rate	5.00							
	Area Weightage 6%	0.30							
	Total	**5.30**							
	Srirampura								
	60 feet Rd	1	133.00	8.20		1090.60			
		1	116.00	7.80		904.80			
		1	189.00	8.80		1663.20			
		1	350.00	8.70		3045.00			
		1	127.00	8.20		1041.40			
	Cross Road -1	1	68.00	7.50		510.00			
	Cross Road -2	1	43.00	7.50		322.50			
	Cross Road -3	1	115.00	5.50		632.50			
	Cross Road -4	1	207.00	5.00		1035.00			
	MCECHS Layout								
	20th cross	1	140.00	5.60		784.00			
	21st cross	1	126.00	5.50		693.00			
	21st to 25th connecting	1	141.00	4.50		634.50			
	1st cross	1	68.00	4.50		306.00			
	2nd cross	1	79.00	4.80		379.20			
	21st A cross	1	142.00	5.50		781.00			
	Deduct primme coat area					-10752.70			
						3070.00	**Sqm**	**5.30**	**16,271.00**
13	KSRRB 500-7. Providing and applying **tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	Basic rate	12.00							
	Area Weightage 6%	0.72							
	Total	**12.72**							
	Srirampura								
	60 feet Rd	1	133.00	8.20		1090.60			
		1	116.00	7.80		904.80			
		1	189.00	8.80		1663.20			
		1	350.00	8.70		3045.00			
		1	127.00	8.20		1041.40			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Cross Road -1	1	68.00	7.50		510.00			
	Cross Road -2	1	43.00	7.50		322.50			
	Cross Road -3	1	115.00	5.50		632.50			
	Cross Road -4	1	207.00	5.00		1035.00			
	MCECHS Layout								
	20th cross	1	140.00	5.60		784.00			
	21st cross	1	126.00	5.50		693.00			
	21st to 25th connecting	1	141.00	4.50		634.50			
	1st cross	1	68.00	4.50		306.00			
	2nd cross	1	79.00	4.80		379.20			
	21st A cross	1	142.00	5.50		781.00			
						13822.70	**Sqm**	**12.72**	**175824.74**
14	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)								
	Basic rate	6224.00							
	Area Weightage 6%	373.44							
	Total	**6597.44**							
	Srirampura								
	60 feet Rd	1	133.00	8.20	0.05	54.53			
		1	116.00	7.80	0.05	45.24			
		1	189.00	8.80	0.05	83.16			
		1	350.00	8.70	0.05	152.25			
		1	127.00	8.20	0.05	52.07			
	Cross Road -1	1	68.00	7.50	0.05	25.50			
	Cross Road -2	1	43.00	7.50	0.05	16.13			
	Cross Road -3	1	115.00	2.00	0.05	11.50			
	Cross Road -4	1	207.00	2.00	0.05	20.70			
	MCECHS Layout								
	20th cross	1	140.00	2.20	0.05	15.40			
	21st cross	1	126.00	2.20	0.05	13.86			
	21st to 25th connecting	1	141.00	2.20	0.05	15.51			
	1st cross	1	68.00	2.20	0.05	7.48			
	2nd cross	1	79.00	2.20	0.05	8.69			
	21st A cross	1	142.00	2.20	0.05	15.62			
						537.64	**Sqm**	**6597.44**	**3547014.65**

	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
15	Providing and laying **bituminous concrete 40mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)(P.No-171,I No-21.78.12)								
	Basic rate	7315.00							
	Area Weightage 6%	438.90							
	Total	**7753.90**							
	Srirampura								
	60 feet Rd	1	133.00	8.20	0.04	43.62			
		1	116.00	7.80	0.04	36.19			
		1	189.00	8.80	0.04	66.53			
		1	350.00	8.70	0.04	121.80			
		1	127.00	8.20	0.04	41.66			
	Cross Road -1	1	68.00	7.50	0.04	20.40			
	Cross Road -2	1	43.00	7.50	0.04	12.90			
	Cross Road -3	1	115.00	5.50	0.04	25.30			
	Cross Road -4	1	207.00	5.00	0.04	41.40			
	MCECHS Layout								
	20th cross	1	140.00	5.60	0.04	31.36			
	21st cross	1	126.00	5.50	0.04	27.72			
	21st to 25th connecting	1	141.00	4.50	0.04	25.38			
	1st cross	1	68.00	4.50	0.04	12.24			
	2nd cross	1	79.00	4.80	0.04	15.17			
	21st A cross	1	142.00	5.50	0.04	31.24			
						552.91	**Cum**	**7753.90**	**4287193.34**
16	KSRRB M800-13.**Road Marking** with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 6%	25.74							
	Total	**454.74**							
	Srirampura								
	60 feet Rd	2.5	133.00	0.10		33.25			
		2.5	116.00	0.10		29.00			
		2.5	189.00	0.10		47.25			
		2.5	350.00	0.10		87.50			
		2.5	127.00	0.10		31.75			
	Cross Road -1	2.5	68.00	0.10		17.00			

	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Cross Road -2	2.5	43.00	0.10		10.75			
	Cross Road -3	2	115.00	0.10		23.00			
	Cross Road -4	2	207.00	0.10		41.40			
	MCECHS Layout								
	20th cross	2	140.00	0.10		28.00			
	21st cross	2	126.00	0.10		25.20			
	21st to 25th connecting	2	141.00	0.10		28.20			
	1st cross	2	68.00	0.10		13.60			
	2nd cross	2	79.00	0.10		15.80			
	21st A cross	2	142.00	0.10		28.40			
						460.10	**Sqm**	**454.74**	**209225.87**
								Total Construction Cost	**17633548.32**
								12% GST	**2116025.80**
								DPR & PMC Charges	**250000.00**
								Sub Total	**19999574.12**
								Miscellaneous & Rounding off	**425.88**
								GRAND TOTAL	**20000000.00**

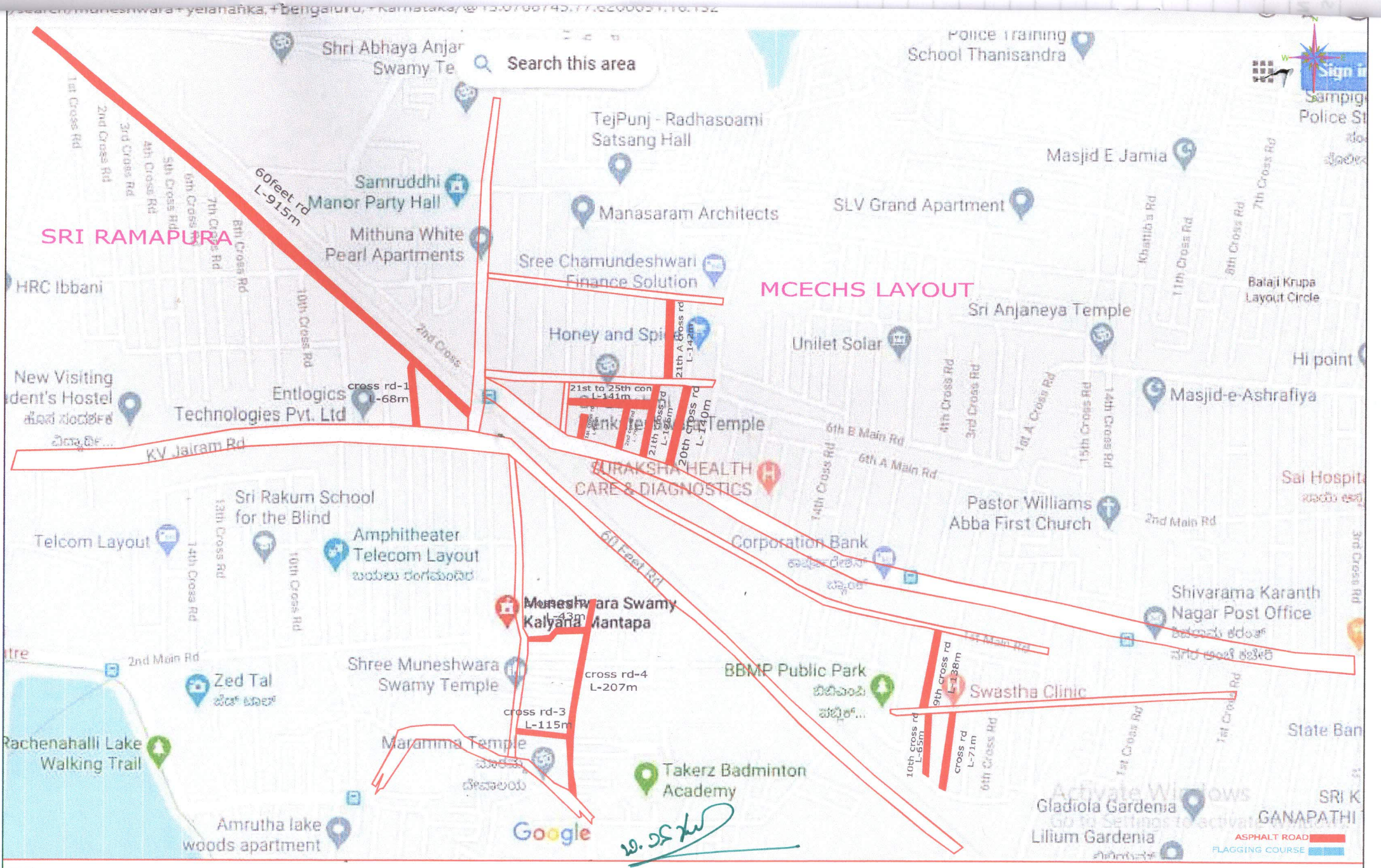
Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, Data Rates and issue rates Dated 03-01-2020

Assistant Engineer,
Ward 05

Asst. Exec. Engineer,
Dasarahalli Sub Division

Executive Engineer,
Byatarayanapura Division



CLIENT: BRUHAT BANGALORE MAHANAGARA PALIKE	CONSULTANT:- Silicon Consulting Engineers #S1317, 4th CROSS BEL 2nd STAGE BHARATH NAGAR BANGALORE 560 091. E-mail siliconcivilengineers@gmail.com	Assistant Engineer	Assistant Executive Engineer	Executive Engineer	Improvements to Roads and Drains at Srirampura, MCECHS layout and Surrounding areas in Ward no.05	Date Drg. No Rev. No

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Improvements to Roads and Drains at Babanagar and Surrounding areas in Ward No.05

DETAILED ESTIMATE

Estimated Cost
Rs. 200.00 Lakh

Office of the
Executive Engineer
BYATARAYANAPURA DIVISION
Bruhat Bangalore Mahanagara Palike
Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Byatarayanapura Division

Name of Work: Improvements to Roads and Drains at Babanagar and Surrounding areas in Ward No.05

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Removing & Refixing stone slabs of drains and pointing in C.M (1:3) (Page No 27., I.No.5.33 of KPWD S.R 2018-19).								
	Basic rate	105.00							
	6% AW	6.30							
	Sub Total	111.30							
	Bottom Drain Slabs								
	Baba nagar								
	Cross Road -1	2	157.00	1.65		518.10			
	2nd main Rd	2	164.00	1.65		541.20			
	3rd main Rd	2	157.00	1.65		518.10			
	Cross Road -2	2	177.00	1.65		584.10			
	Cross Road -3	2	139.00	1.65		458.70			
						2620.20			
	Deduct 25% damaged/missing					655.05			
						1965.15			
	consider 30%					**589.55**	**Sqm**	**111.30**	**65,616.36**
2	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. **Earthwork excavation by manual means** in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No-143, I.No-19.1)								
	Basic rate	130.00							
	Area weightage 6%	7.80							
	Sub total	137.80							
	Loading and unloading with Lead 5 km	**69.80**							
	Total	**207.60**							
	Desilting								
	Baba nagar								
	Cross Road -1	2	157.00	0.50	0.45	70.65			
	2nd main Rd	2	164.00	0.50	0.45	73.80			
	3rd main Rd	2	157.00	0.50	0.45	70.65			
	Cross Road -2	2	177.00	0.50	0.45	79.65			
	Cross Road -3	2	139.00	0.50	0.45	62.55			
	RCC Drain								
	Punyakoti Milk Dairy Rd	2	235.00	1.10	1.00	517.00			
	Kattigenahalli 3rd cross	2	109.00	1.10	1.00	239.80			
	Culvert	7	7.00	1.80	1.00	88.20			
						1202.30	**Cum**	**207.60**	**249597.48**
	Providing granite slabs of selected quality roughly dressed having a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete. I.No.5.31.1, Page no 27								

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Basic rate	700.00							
	Area weightage 6%	42.00							
	Total	**742.00**							
	from item no.01					655.05			
						655.05	**Sqm**	**742.00**	**486047.10**
	KSRRB M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6** with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18)								
	Basic rate	5115.00							
	6% AW	306.90							
	Sub Total	**5421.90**							
	RCC Drain								
	Punyakoti Milk Dairy Rd	2	235.00	1.10	0.15	77.55			
	Kattigenahalli 3rd cross	2	109.00	1.10	0.15	35.97			
	Culvert	7	7.00	1.80	0.15	13.23			
	CC Road								
	Kattigenahalli 3rd cross	1	110.00	5.20	0.15	85.80			
						212.55	**Cum**	**5421.90**	**1152424.85**
5	Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	6% AW	400.20							
	Sub Total	**7070.20**							
	CC Drain Raft								
	Punyakoti Milk Dairy Rd	2	235.00	0.90	0.15	63.45			
	Kattigenahalli 3rd cross	2	109.00	0.90	0.15	29.43			
	Wall								
	8th main	4	235.00	0.15	0.60	84.60			
	2nd cross road	4	109.00	0.15	0.60	39.24			
						216.72	**Cum**	**7070.20**	**1532253.74**
	KSRB 4.9.2 : Providing **T.M.T steel reinforcement** for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications. Specificatio (I No-28.8.2,P No-229)								
	Basic rate	68233.00							
	6% AW	4093.98							
	Sub Total	**72326.98**							

	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Consider 60kg/Cum for drain	1	216.72	60.00		13.00			
						13.00	**Tn**	**72326.98**	**940482.19**
	KSRB 5.2-3 : **Providing and constructing granite / trap / basalt size stone masonry** in foundation with cement mortar, stone hammered dressed in courses not less than 20 cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13, cement mortar 1:6 KBS 5.1.13 (P.No-25,I No-5.6)								
	Basic rate	4596.00							
	6% AW	275.76							
	Sub Total	**4871.76**							
	Agrahara layout								
	Culvert Wall	14	7.00	0.45	0.80	35.28			
						35.28	**Cum**	**4871.76**	**171875.69**
8	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of Mix 1:2:4** with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No-13,I No-4.6)								
	Basic rate	5422.00							
	6% AW	325.32							
	Sub Total	5747.32							
	For Flagging Course P.C.C								
	Baba nagar								
	Cross Road -1	4	157.00	0.20	0.15	18.84			
	2nd main Rd	4	164.00	0.20	0.15	19.68			
	3rd main Rd	4	157.00	0.20	0.15	18.84			
	Cross Road -2	4	177.00	0.20	0.15	21.24			
	Cross Road -3	4	139.00	0.20	0.15	16.68			
	For Flagging Course Coping								
	Baba nagar								
	Cross Road -1	4	157.00	0.15	0.10	9.42			
	2nd main Rd	4	164.00	0.15	0.10	9.84			
	3rd main Rd	4	157.00	0.15	0.10	9.42			
	Cross Road -2	4	177.00	0.15	0.10	10.62			
	Cross Road -3	4	139.00	0.15	0.10	8.34			
	Culvert Coping	14	7.00	0.45	0.10	4.41			
	Culvert Vent	7	7.00	0.60	0.15	4.41			
						151.74	**Cum**	**5747.32**	**872098.34**
	KSRB 5-14 : Providing and constructing load bearing wall with **solid concrete blocks of size 400x150x200 mm** having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 I.No.5.26.2, Page no 27								
	Basic rate	924.00							

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Area weightage 6%	55.44							
	Total	**979.44**							
	Flagging Course								
	Baba nagar								
	Cross Road -1	4	157.00		0.40	251.20			
	2nd main Rd	4	164.00		0.40	262.40			
	3rd main Rd	4	157.00		0.40	251.20			
	Cross Road -2	4	177.00		0.40	283.20			
	Cross Road -3	4	139.00		0.40	222.40			
						1270.40	**Sqm**	**979.44**	**1244280.58**
10	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M25 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Data rate	2337.00							
	For Flagging Course Drain								
	Baba nagar								
	Cross Road -1	2	157.00	0.90		282.60			
	2nd main Rd	2	164.00	0.90		295.20			
	3rd main Rd	2	157.00	0.90		282.60			
	Cross Road -2	2	177.00	0.90		318.60			
	Cross Road -3	2	139.00	0.90		250.20			
	RCC Drain								
	Punyakoti Milk Dairy Rd	2	235.00	0.90		423.00			
	Kattigenahalli 3rd cross	2	109.00	0.90		196.20			
						2048.40	**Sqm**	**2337.00**	**4787110.80**
11	Providing and Fixing **pre cast covering Slab 250mm thick** made out of M25 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	5418.00							
	Culvert Vent	7	7.00	1.50		73.50			
						73.50	**Sqm**	**5418.00**	**398223.00**
12	KSRRB M300-14. **Excavation for roadwork** in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1km and complete as per specifications.(I No-19.14,P No-143)								
	Basic rate	41.00							
	Area Weightage 6%	2.46							
	Sub total	43.46							
	with Lead 5 km	**12.80**							
	Total	**56.26**							
	Baba nagar								
	Cross Road -1	1	157.00	5.40	0.300	254.34			
	Bad Reaches								
	2nd main Rd	1	164.00	2.50	0.200	82.00			
	3rd main Rd	1	157.00	2.50	0.200	78.50			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Cross Road -2	1	177.00	2.50	0.200	88.50			
	Cross Road -3	1	139.00	2.50	0.200	69.50			
	Punyakoti Milk Dairy Rd	1	235.00	2.00	0.200	94.00			
	CC Road								
	Kattigenahalli 3rd cross	1	110.00	5.20	0.300	171.60			
						838.44	**Cum**	**56.26**	**47,170.63**
3	Construction of **granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	Basic rate	1882.00							
	Area Weightage 6%	112.92							
	Total	**1994.92**							
	Baba nagar								
	Cross Road -1	1	157.00	5.40	0.150	127.17			
	Bad Reaches								
	2nd main Rd	1	164.00	2.50	0.150	61.50			
	3rd main Rd	1	157.00	2.50	0.150	58.88			
	Cross Road -2	1	177.00	2.50	0.150	66.38			
	Cross Road -3	1	139.00	2.50	0.150	52.13			
	Punyakoti Milk Dairy Rd	1	235.00	2.00	0.150	70.50			
						436.55	**Cum**	**1994.92**	**870872.35**
14	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	Basic rate	1888.00							
	Area Weightage 6%	113.28							
	Total	**2001.28**							
	Baba nagar								
	Cross Road -1	1	157.00	5.40	0.225	190.76			
	Bad Reaches								
	2nd main Rd	1	164.00	2.50	0.225	92.25			
	3rd main Rd	1	157.00	2.50	0.225	88.31			
	Cross Road -2	1	177.00	2.50	0.225	99.56			
	Cross Road -3	1	139.00	2.50	0.225	78.19			
	Punyakoti Milk Dairy Rd	1	235.00	2.00	0.225	105.75			
						654.82	**Cum**	**2001.28**	**1310473.17**
5	KSRRB M500-6. Providing and **applying primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	Basic rate	27.00							
	Area Weightage 6%	1.62							

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Total	**28.62**							
	Baba nagar								
	Cross Road -1	1	157.00	5.40		847.80			
	Bad Reaches								
	2nd main Rd	1	164.00	2.50		410.00			
	3rd main Rd	1	157.00	2.50		392.50			
	Cross Road -2	1	177.00	2.50		442.50			
	Cross Road -3	1	139.00	2.50		347.50			
	Punyakoti Milk Dairy Rd	1	235.00	4.50		1057.50			
						3497.80	**Sqm**	**28.62**	**100107.04**
16	KSRRB 500-2. **Cleaning the existing black topped surface** with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. (P.No-158,I No-21.12,KPWD SR 2018-19)								
	Basic rate	5.00							
	Area Weightage 6%	0.30							
	Total	**5.30**							
	Baba nagar								
	Cross Road -1	1	157.00	5.40		847.80			
	Bad Reaches								
	2nd main Rd	1	164.00	5.00		820.00			
	3rd main Rd	1	157.00	5.70		894.90			
	Cross Road -2	1	177.00	5.40		955.80			
	Cross Road -3	1	139.00	5.00		695.00			
	Punyakoti Milk Dairy Rd	1	235.00	4.50		1057.50			
	Deduct primme coat area					-3497.80			
						1773.20	**Sqm**	**5.30**	**9,397.96**
17	KSRRB 500-7. Providing and applying **tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	Basic rate	12.00							
	Area Weightage 6%	0.72							
	Total	**12.72**							
	Baba nagar								
	Cross Road -1	1	157.00	5.40		847.80			
	2nd main Rd	1	164.00	5.00		820.00			
	3rd main Rd	1	157.00	5.70		894.90			
	Cross Road -2	1	177.00	5.40		955.80			
	Cross Road -3	1	139.00	5.00		695.00			
	Punyakoti Milk Dairy Rd	1	235.00	4.50		1057.50			
						5271.00	**Sqm**	**12.72**	**67,047.12**

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
18	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)								
	Basic rate	6224.00							
	Area Weightage 6%	373.44							
	Total	**6597.44**							
	Baba nagar								
	Cross Road -1	1	157.00	5.40	0.05	42.39			
	Bad Reaches								
	2nd main Rd	1	164.00	2.50	0.05	20.50			
	3rd main Rd	1	157.00	2.50	0.05	19.63			
	Cross Road -2	1	177.00	2.50	0.05	22.13			
	Cross Road -3	1	139.00	2.50	0.05	17.38			
	Punyakoti Milk Dairy Rd	1	235.00	4.50	0.05	52.88			
						174.89	**Sqm**	**6597.44**	**1153826.28**
19	Providing and laying **bituminous concrete 40mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)(P.No-171,I No-21.78.12)								
	Basic rate	7315.00							
	Area Weightage 6%	438.90							
	Total	**7753.90**							
	Baba nagar								
	Cross Road -1	1	157.00	5.40	0.04	33.91			
	2nd main Rd	1	164.00	5.00	0.04	32.80			
	3rd main Rd	1	157.00	5.70	0.04	35.80			
	Cross Road -2	1	177.00	5.40	0.04	38.23			
	Cross Road -3	1	139.00	5.00	0.04	27.80			
	Punyakoti Milk Dairy Rd	1	235.00	4.50	0.04	42.30			
						210.84	**Cum**	**7753.90**	**1634832.28**
0	KSRRB M800-13.**Road Marking** with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 6%	25.74							
	Total	**454.74**							

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Babu nagar								
	Cross Road -1	2	157.00	0.10		31.40			
	2nd main Rd	2	164.00	0.10		32.80			
	3rd main Rd	2	157.00	0.10		31.40			
	Cross Road -2	2	177.00	0.10		35.40			
	Cross Road -3	2	139.00	0.10		27.80			
	Punyakoti Milk Dairy Rd	2	235.00	0.10		47.00			
						205.80	**Sqm**	**454.74**	**93,585.49**
21	**Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30** with OPC at 360 kg/cum and coarse aggregate 0.69cum, fine aggregate 0.46cum. over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour,hire charges of machineries,all lead & lift charges etc., complete as per specifications. (P.No-176,I No-22.6.1)								
	Basic rate	4916.00							
	6% AW	294.96							
	Sub Total	**5210.96**							
	CC Road								
	Kattigenahalli 3rd cross	1	110.00	5.20	0.15	85.80			
						85.80	**Cum**	**5210.96**	**447100.37**
								Total Construction Cost	**17634422.81**
								12% GST	**2116130.74**
								DPR & PMC Charges	**249000.00**
								Sub Total	**19999553.54**
								Miscellaneous & Rounding off	**446.46**
								GRAND TOTAL	**20000000.00**

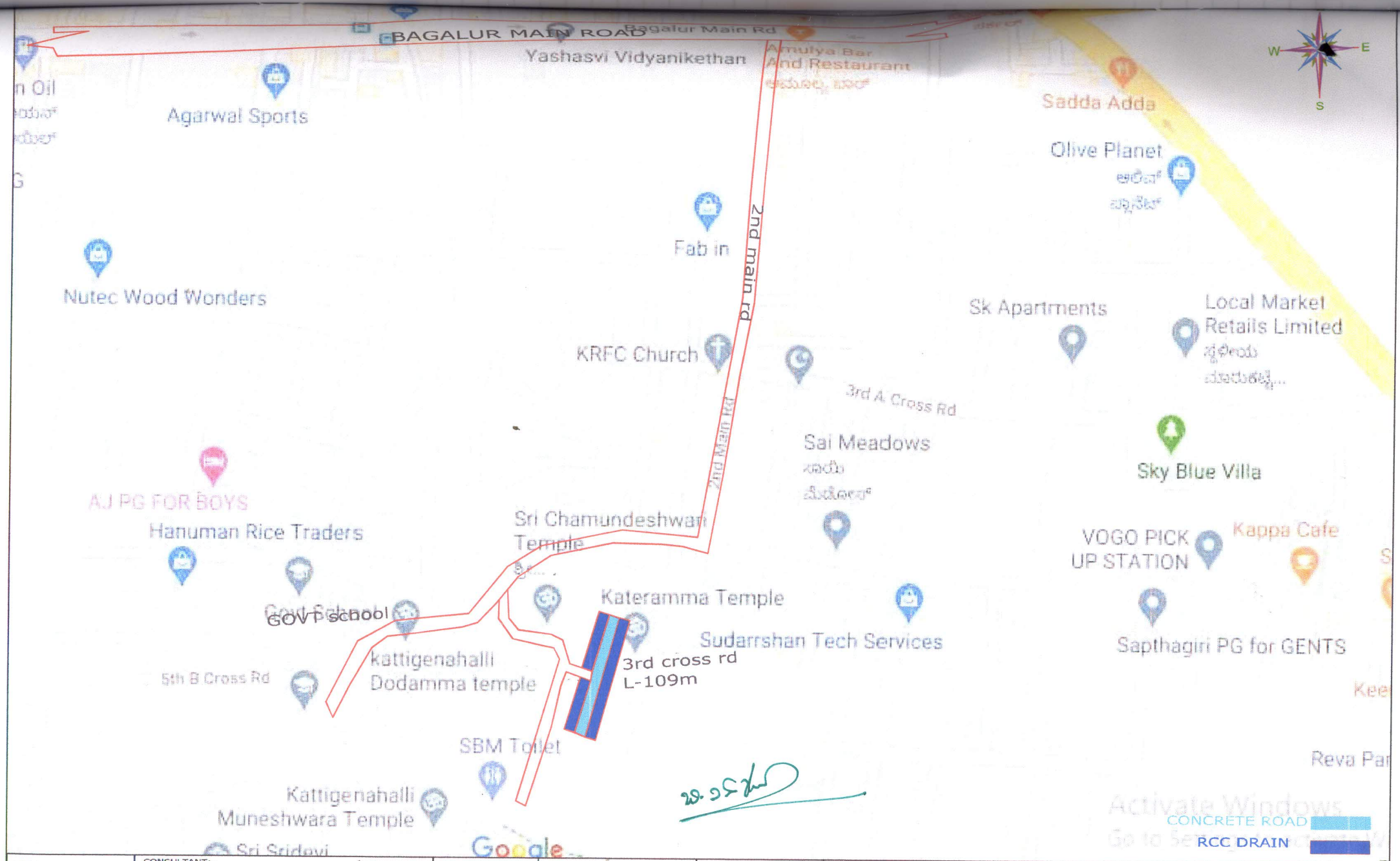
Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, Data Rates and issue rates Dated 03-01-2020

Assistant Engineer,
Ward 05

Asst. Exec. Engineer,
Dasarahalli Sub Division

Executive Engineer,
Byatarayanapura Division



CHIEF
BRUHAT BANGALORE MAHANAGARA PALIKE

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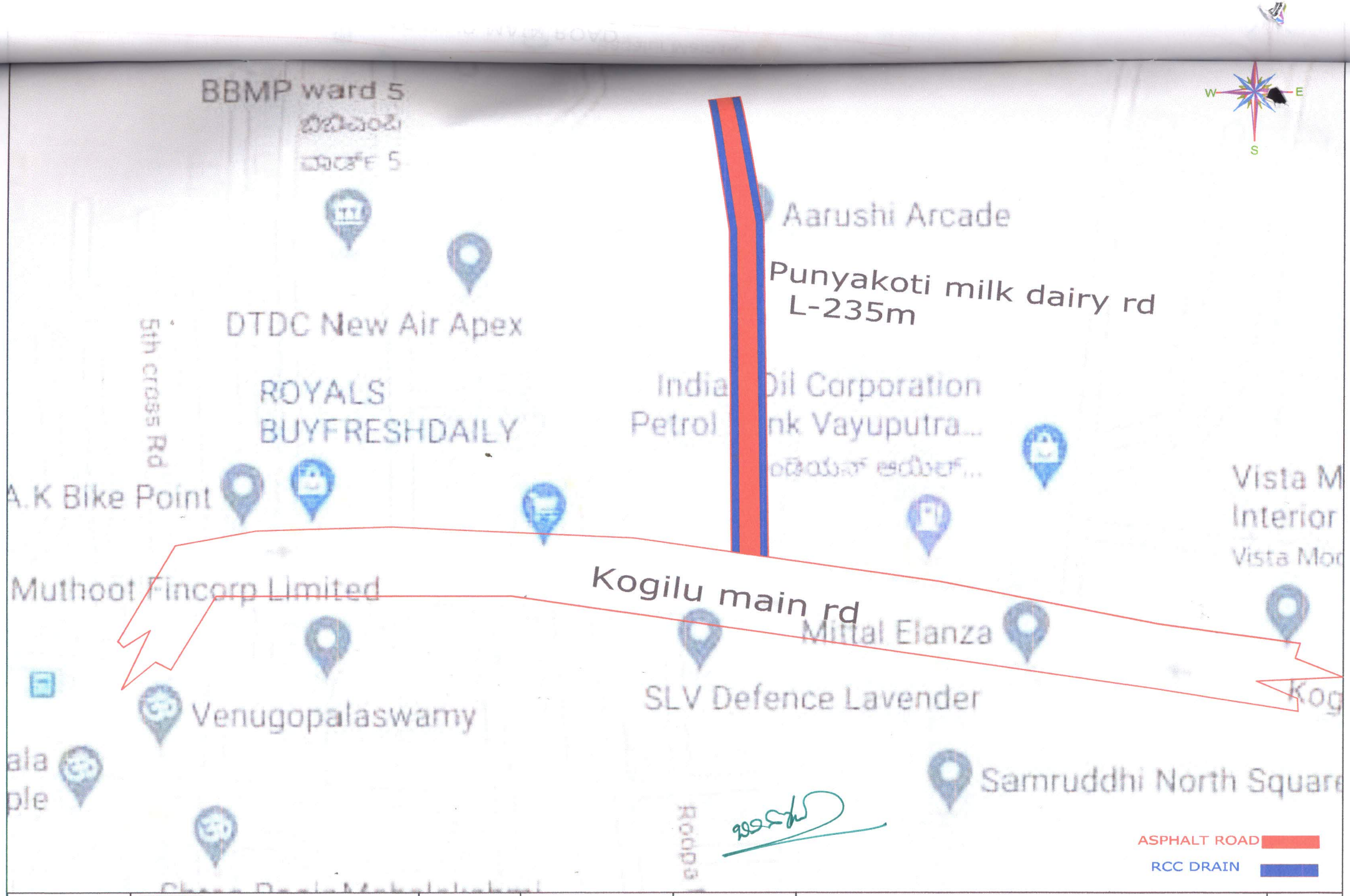
Improvements to Roads and Drains at Babanagar and Surrounding areas in Ward no.05



BRUHAT BANGALORE MAHANAGARA PALIKE	CONSULTANT:- Silicon Consulting Engineers #S1317, 4th CROSS BEL 2nd STAGE BHARATH NAGAR BANGALORE 560 091. E-mail siliconcivilengineers@gmail.com				Improvements to Roads and Drains at Babanagar and Surrounding areas in Ward no.05

BABA NAGAR

CLIENT:
BRUHAT BANGALORE MAHANAGARA PALIKE

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Improvements to Roads and Drains at Babanagar and Surrounding areas in Ward no.05

2

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Improvements to Roads and Drains at Bhagath Enclave, Kalidasa layout, Chamundeshwari nagara and Surrounding areas in Ward No.05

DETAILED ESTIMATE

Estimated Cost
Rs. 200.00 Lakh

Office of the
Executive Engineer
BYATARAYANAPURA DIVISION
Bruhat Bangalore Mahanagara Palike
Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Byatarayanapura Division

Name of Work: Improvements to Roads and Drains at Bhagath Enclave, Kalidasa layout, Chamundeshwari nagara and Surrounding areas in Ward No.05

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
Removing & Refixing stone slabs of drains and pointing in C.M (1:3) (Page No 27., I.No.5.33 of KPWD S.R 2018-19).								
Basic rate	105.00							
6% AW	6.30							
Sub Total	111.30							
Bottom Drain Slabs								
Bhagath Enclave								
Cross Road -1	2	87.00	1.65		287.10			
Cross Road -2	2	178.00	1.65		587.40			
Kalidasa Layout								
Cross Road -1	2	119.00	1.65		392.70			
Cross Road -2	2	122.00	1.65		402.60			
Chamundeshwari nagara								
Cross Road -2	2	133.00	1.65		438.90			
Cross Road -3	2	132.00	1.65		435.60			
Attukul Layout								
Cross Road -1	2	116.00	1.65		382.80			
Cross Road -2	2	158.00	1.65		521.40			
Cross Road -3	2	109.00	1.65		359.70			
					3808.20			
Deduct 20% damaged/missing					761.64			
					3046.56			
consider 30%					**913.97**	**Sqm**	**111.30**	**101724.64**
KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. **Earthwork excavation by manual means** in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No-143, I.No-19.1)								
Basic rate	130.00							
Area weightage 6%	7.80							
Sub total	137.80							
Loading and unloading with Lead 5 km	**69.80**							
Total	**207.60**							
Desilting								
Bhagath Enclave								
Cross Road -1	2	87.00	0.50	0.50	43.50			
Cross Road -2	2	178.00	0.50	0.50	89.00			
Kalidasa Layout								

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Cross Road -1	2	119.00	0.50	0.50	59.50			
	Cross Road -2	2	122.00	0.50	0.50	61.00			
	Chamundeshwari nagara								
	Cross Road -2	2	133.00	0.50	0.50	66.50			
	Cross Road -3	2	132.00	0.50	0.50	66.00			
	Attukul Layout								
	Cross Road -1	2	116.00	0.50	0.50	58.00			
	Cross Road -2	2	158.00	0.50	0.50	79.00			
	Cross Road -3	2	109.00	0.50	0.50	54.50			
	Culvert	6	6.50	1.80	1.00	70.20			
						647.20	**Cum**	**207.60**	**134358.72**
	Providing granite slabs of selected quality roughly dressed having a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete. I.No.5.31.1, Page no 27								
	Basic rate	700.00							
	Area weightage 6%	42.00							
	Total	**742.00**							
	from item no.01					761.64			
						761.64	**Sqm**	**742.00**	**565136.88**
	KSRRB M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6** with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18)								
	Basic rate	5115.00							
	6% AW	306.90							
	Sub Total	**5421.90**							
	Culvert	6	6.50	1.80	0.15	10.53			
						10.53	**Cum**	**5421.90**	**57,092.61**
	KSRB 5.2-3 : **Providing and constructing granite / trap / basalt size stone masonry** in foundation with cement mortar, stone hammered dressed in courses not less than 20 cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13, cement mortar 1:6 KBS 5.1.13 (P.No-25,I No-5.6)								
	Basic rate	4596.00							
	6% AW	275.76							
	Sub Total	**4871.76**							
	Agrahara layout								
	Culvert Wall	12	6.50	0.45	0.80	28.08			
						28.08	**Cum**	**4871.76**	**136799.02**

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
6	KSR 4-1.6 ; Providing and laying in position **plain cement concrete of Mix 1:2:4** with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No-13,I No-4.6)								
	Basic rate	5422.00							
	6% AW	325.32							
	Sub Total	5747.32							
	For Flagging Course P.C.C								
	Bhagath Enclave								
	Cross Road -1	4	87.00	0.20	0.15	10.44			
	Cross Road -2	4	178.00	0.20	0.15	21.36			
	Kalidasa Layout								
	Cross Road -1	4	119.00	0.20	0.15	14.28			
	Cross Road -2	4	122.00	0.20	0.15	14.64			
	Chamundeshwari nagara								
	Cross Road -2	4	133.00	0.20	0.15	15.96			
	Cross Road -3	4	132.00	0.20	0.15	15.84			
	Attukul Layout								
	Cross Road -1	4	116.00	0.20	0.15	13.92			
	Cross Road -2	4	158.00	0.20	0.15	18.96			
	Cross Road -3	4	109.00	0.20	0.15	13.08			
	For Flagging Course Coping								
	Bhagath Enclave								
	Cross Road -1	4	87.00	0.15	0.10	5.22			
	Cross Road -2	4	178.00	0.15	0.10	10.68			
	Kalidasa Layout								
	Cross Road -1	4	119.00	0.15	0.10	7.14			
	Cross Road -2	4	122.00	0.15	0.10	7.32			
	Chamundeshwari nagara								
	Cross Road -2	4	133.00	0.15	0.10	7.98			
	Cross Road -3	4	132.00	0.15	0.10	7.92			
	Attukul Layout								
	Cross Road -1	4	116.00	0.15	0.10	6.96			
	Cross Road -2	4	158.00	0.15	0.10	9.48			
	Cross Road -3	4	109.00	0.15	0.10	6.54			
	Culvert Coping	12	6.50	0.45	0.10	3.51			
	Culvert Vent	6	6.50	0.60	0.15	3.51			
						214.74	**Cum**	**5747.32**	**1234179.50**
7	KSR 5-14 : Providing and constructing load bearing wall with **solid concrete blocks of size 400x150x200 mm** having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 I.No.5.26.2, Page no 27								

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Basic rate	924.00							
	Area weightage 6%	55.44							
	Total	**979.44**							
	Flagging Course								
	Bhagath Enclave								
	Cross Road -1	4	87.00		0.40	139.20			
	Cross Road -2	4	178.00		0.40	284.80			
	Kalidasa Layout								
	Cross Road -1	4	119.00		0.40	190.40			
	Cross Road -2	4	122.00		0.40	195.20			
	Chamundeshwari nagara								
	Cross Road -2	4	133.00		0.40	212.80			
	Cross Road -3	4	132.00		0.40	211.20			
	Attukul Layout								
	Cross Road -1	4	116.00		0.40	185.60			
	Cross Road -2	4	158.00		0.20	126.40			
	Cross Road -3	4	109.00		0.40	174.40			
						1720.00	**Sqm**	**979.44**	**1684636.80**
	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M25 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Data rate	2337.00							
	For Drain								
	Flagging Course								
	Bhagath Enclave								
	Cross Road -1	2	87.00	0.90		156.60			
	Cross Road -2	2	178.00	0.90		320.40			
	Kalidasa Layout								
	Cross Road -1	2	119.00	0.90		214.20			
	Cross Road -2	2	122.00	0.90		219.60			
	Chamundeshwari nagara								
	Cross Road -2	2	133.00	0.90		239.40			
	Cross Road -3	2	132.00	0.90		237.60			
	Attukul Layout								
	Cross Road -1	2	116.00	0.90		208.80			
	Cross Road -2	2	158.00	0.90		284.40			
	Cross Road -3	2	109.00	0.90		196.20			
						2077.20	**Sqm**	**2337.00**	**4854416.40**
9	Providing and Fixing **pre cast covering Slab 250mm thick** made out of M25 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	5418.00							

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Culvert	6	6.50	1.50		58.50			
						58.50	**Sqm**	**5418.00**	**316953.00**
10	KSRRB M300-14. **Excavation for roadwork** in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1km and complete as per specifications.(I No-19.14,P No-143)								
	Basic rate	41.00							
	Area Weightage 6%	2.46							
	Sub total	43.46							
	with Lead 5 km	**12.80**							
	Total	**56.26**							
	Bhagath Enclave								
	Cross Road -1	1	87.00	5.60	0.350	170.52			
	Cross Road -2	1	178.00	2.50	0.350	155.75			
	Kalidasa Layout								
	Cross Road -1	1	119.00	5.60	0.350	233.24			
	Cross Road -2	1	122.00	5.50	0.350	234.85			
	Chamundeshwari nagara								
	Cross Road -1	1	77.00	2.60	0.350	70.07			
	Cross Road -2	1	133.00	2.60	0.350	121.03			
	Cross Road -3	1	132.00	2.60	0.350	120.12			
	Attukul Layout								
	Cross Road -1	1	116.00	5.00	0.350	203.00			
	Cross Road -2	1	158.00	5.60	0.350	309.68			
	Cross Road -3	1	109.00	4.60	0.350	175.49			
						1793.75	**Cum**	**56.26**	**100916.38**
1	Construction of **granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	Basic rate	1882.00							
	Area Weightage 6%	112.92							
	Total	**1994.92**							
	Bhagath Enclave								
	Cross Road -1	1	87.00	5.60	0.150	73.08			
	Cross Road -2	1	178.00	2.50	0.150	66.75			
	Kalidasa Layout								
	Cross Road -1	1	119.00	5.60	0.150	99.96			
	Cross Road -2	1	122.00	5.50	0.150	100.65			
	Chamundeshwari nagara								
	Cross Road -1	1	77.00	2.60	0.150	30.03			
	Cross Road -2	1	133.00	2.60	0.150	51.87			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Cross Road -3	1	132.00	2.60	0.150	51.48			
	Attukul Layout								
	Cross Road -1	1	116.00	5.00	0.150	87.00			
	Cross Road -2	1	158.00	5.60	0.150	132.72			
	Cross Road -3	1	109.00	4.60	0.150	75.21			
						768.75	**Cum**	**1994.92**	**1533594.75**
12	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	Basic rate	1888.00							
	Area Weightage 6%	113.28							
	Total	**2001.28**							
	Bhagath Enclave								
	Cross Road -1	1	87.00	5.60	0.225	109.62			
	Cross Road -2	1	178.00	2.50	0.225	100.13			
	Kalidasa Layout								
	Cross Road -1	1	119.00	5.60	0.225	149.94			
	Cross Road -2	1	122.00	5.50	0.225	150.98			
	Chamundeshwari nagara								
	Cross Road -1	1	77.00	2.60	0.225	45.05			
	Cross Road -2	1	133.00	2.60	0.225	77.81			
	Cross Road -3	1	132.00	2.60	0.225	77.22			
	Attukul Layout								
	Cross Road -1	1	116.00	5.00	0.225	130.50			
	Cross Road -2	1	158.00	5.60	0.225	199.08			
	Cross Road -3	1	109.00	4.60	0.225	112.82			
						1153.13	**Cum**	**2001.28**	**2307726.00**
13	KSRRB M500-6. Providing and **applying primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	Basic rate	27.00							
	Area Weightage 6%	1.62							
	Total	**28.62**							
	Bhagath Enclave								
	Cross Road -1	1	87.00	5.60		487.20			
	Cross Road -2	1	178.00	5.20		925.60			
	Kalidasa Layout								
	Cross Road -1	1	119.00	5.60		666.40			
	Cross Road -2	1	122.00	5.50		671.00			
	Chamundeshwari nagara								
	Cross Road -1	1	77.00	5.50		423.50			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Cross Road -2	1	133.00	5.50		731.50			
	Cross Road -3	1	132.00	5.40		712.80			
	Attukul Layout								
	Cross Road -1	1	116.00	5.00		580.00			
	Cross Road -2	1	158.00	5.60		884.80			
	Cross Road -3	1	109.00	4.60		501.40			
						6584.20	**Sqm**	**28.62**	**188439.80**
14	KSRRB 500-7. Providing and applying **tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	Basic rate	12.00							
	Area Weightage 6%	0.72							
	Total	**12.72**							
	Bhagath Enclave								
	Cross Road -1	1	87.00	5.60		487.20			
	Cross Road -2	1	178.00	5.20		925.60			
	Kalidasa Layout								
	Cross Road -1	1	119.00	5.60		666.40			
	Cross Road -2	1	122.00	5.50		671.00			
	Chamundeshwari nagara								
	Cross Road -1	1	77.00	5.50		423.50			
	Cross Road -2	1	133.00	5.50		731.50			
	Cross Road -3	1	132.00	5.40		712.80			
	Attukul Layout								
	Cross Road -1	1	116.00	5.00		580.00			
	Cross Road -2	1	158.00	5.60		884.80			
	Cross Road -3	1	109.00	4.60		501.40			
						6584.20	**Sqm**	**12.72**	**83,751.02**
15	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)								
	Basic rate	6224.00							
	Area Weightage 6%	373.44							
	Total	**6597.44**							
	Bhagath Enclave								
	Cross Road -1	1	87.00	5.60	0.05	24.36			
	Cross Road -2	1	178.00	5.20	0.05	46.28			
	Kalidasa Layout								
	Cross Road -1	1	119.00	5.60	0.05	33.32			
	Cross Road -2	1	122.00	5.50	0.05	33.55			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Chamundeshwari nagara								
	Cross Road -1	1	77.00	5.50	0.05	21.18			
	Cross Road -2	1	133.00	5.50	0.05	36.58			
	Cross Road -3	1	132.00	5.40	0.05	35.64			
	Attukul Layout								
	Cross Road -1	1	116.00	5.00	0.05	29.00			
	Cross Road -2	1	158.00	5.60	0.05	44.24			
	Cross Road -3	1	109.00	4.60	0.05	25.07			
						329.21	**Cum**	**6597.44**	**2171943.22**
16	Providing and laying **bituminous concrete 40mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)(P.No-171,I No-21.78.12)								
	Basic rate	7315.00							
	Area Weightage 6%	438.90							
	Total	**7753.90**							
	Bhagath Enclave								
	Cross Road -1	1	87.00	5.60	0.04	19.49			
	Cross Road -2	1	178.00	5.20	0.04	37.02			
	Kalidasa Layout								
	Cross Road -1	1	119.00	5.60	0.04	26.66			
	Cross Road -2	1	122.00	5.50	0.04	26.84			
	Chamundeshwari nagara								
	Cross Road -1	1	77.00	5.50	0.04	16.94			
	Cross Road -2	1	133.00	5.50	0.04	29.26			
	Cross Road -3	1	132.00	5.40	0.04	28.51			
	Attukul Layout								
	Cross Road -1	1	116.00	5.00	0.04	23.20			
	Cross Road -2	1	158.00	5.60	0.04	35.39			
	Cross Road -3	1	109.00	4.60	0.04	20.06			
						263.37	**Cum**	**7753.90**	**2042129.14**
17	KSRRB M800-13.**Road Marking** with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Basic rate	429.00							
	Area Weightage 6%	25.74							
	Total	**454.74**							

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Bhagath Enclave								
	Cross Road -1	2	87.00	0.10		17.40			
	Cross Road -2	2	178.00	0.10		35.60			
	Kalidasa Layout								
	Cross Road -1	2	119.00	0.10		23.80			
	Cross Road -2	2	122.00	0.10		24.40			
	Chamundeshwari nagara								
	Cross Road -1	2	77.00	0.10		15.40			
	Cross Road -2	2	133.00	0.10		26.60			
	Cross Road -3	2	132.00	0.10		26.40			
	Attukul Layout								
	Cross Road -1	2	116.00	0.10		23.20			
	Cross Road -2	2	158.00	0.10		31.60			
	Cross Road -3	2	109.00	0.10		21.80			
						246.20	**Sqm**	**454.74**	**111956.99**
								Total Construction Cost	**17625754.86**
								12% GST	**2115090.58**
								DPR & PMC Charges	**259000.00**
								Sub Total	**19999845.44**
								Miscellaneous & Rounding off	**154.56**
								GRAND TOTAL	**20000000.00**

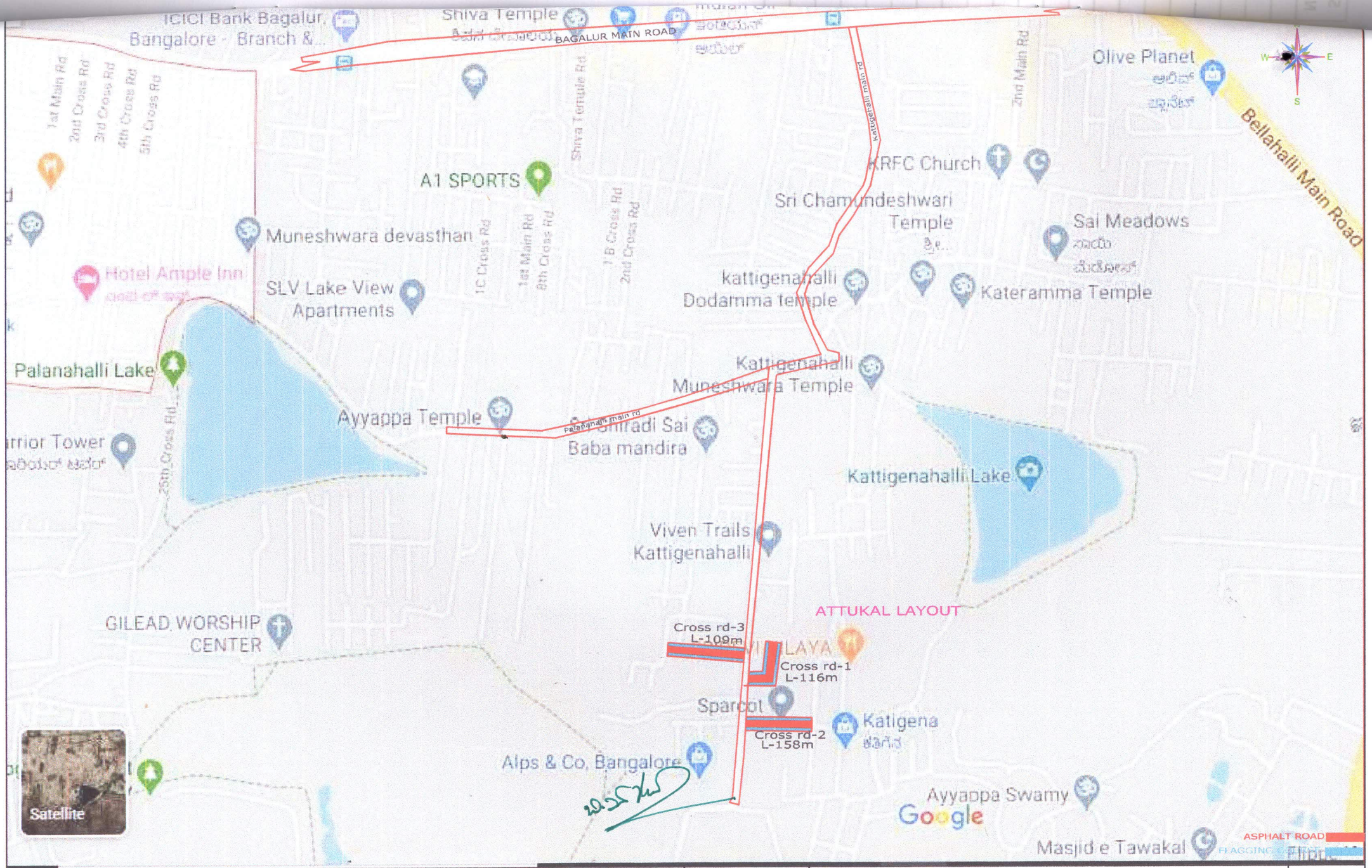
Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, Data Rates and issue rates Dated 03-01-2020

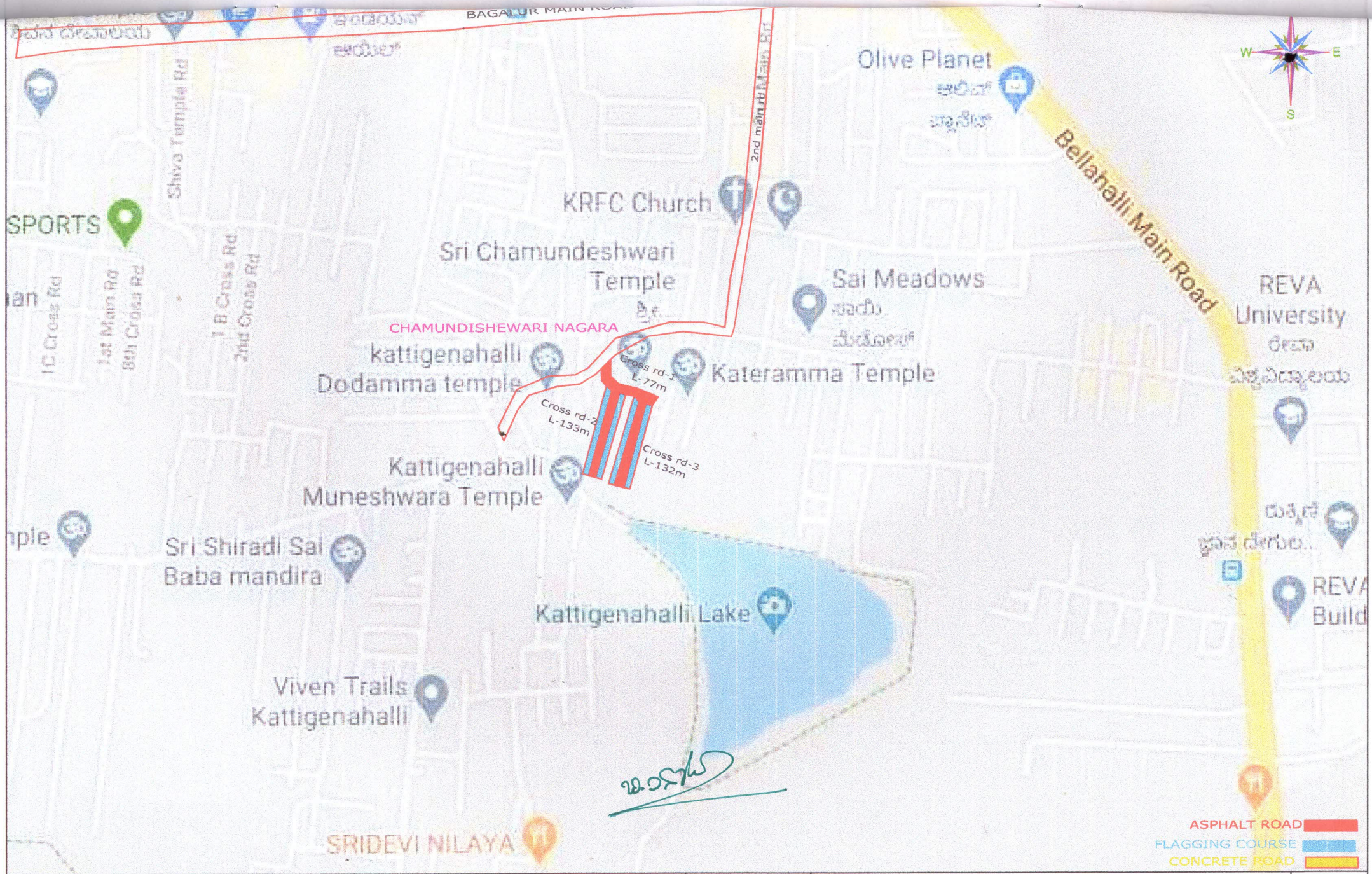
Assistant Engineer,
Ward 05

Asst. Exec. Engineer,
Dasarahalli Sub Division

Executive Engineer,
Byatarayanapura Division



BRUHAT BANGALORE MAHANAGARA PALIKE	CONSULTANT:- **Silicon Consulting Engineers** #S1317, 4th CROSS BEL 2nd STAGE BHARATH NAGAR BANGALORE 560 091. E-mail siliconcivilengineers@gmail.com				Improvements to Roads and Drains at Bhagath Enclave, Kalidasa layout, Chamundeshwari nagara Surrounding areas in Ward no.05	



BRUHAT BANGALORE MAHANAGARA PALIKE	CONSULTANT:- **Silicon Consulting Engineers** #S1317, 4th CROSS BEL 2nd STAGE BHARATH NAGAR BANGALORE 560 091. E-mail siliconcivilengineers@gmail.com				Improvements to Roads and Drains at Bhagath Enclave, Kalidasa layout, Chamundeshwari nagara Surrounding areas in Ward no.05	

CLIENT BRUHAT BANGALORE MAHANAGARA PALIKE	CONSULTANT:- **Silicon Consulting Engineers** #S1317, 4th CROSS BEL 2nd STAGE BHARATH NAGAR BANGALORE 560 091. E-mail siliconcivilengineers@gmail.com	Assistant Engineer	Asst. Executive Engineer	Executive Engineer	Improvements to Roads and Drains at Bhagath Enclave, Kalidasa layout, Chamundeshwari nagara Surrounding areas in Ward no.05	DATE SHEET

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Improvements to Roads and Drains at Palanahalli and Surrounding areas in Ward No.05

DETAILED ESTIMATES

Estimated Cost
Rs. 200.00 Lakh

Office of the
Executive Engineer
BYATARAYANAPURA DIVISION
Bruhat Bangalore Mahanagara Palike
Bangalore

Bruhat Bangalore Mahanagara Palike
Executive Engineer Byatarayanapura Division

Name of Work: Improvements to Roads and Drains at Palanahalli and Surrounding areas in Ward No.05

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. **Earthwork excavation by manual means** in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No-143, I.No-19.1)								
Basic rate	130.00							
Area weightage 6%	7.80							
Sub total	137.80							
Loading and unloading with Lead 5 km	**69.80**							
Total	**207.60**							
CC Drain								
Palanahalli								
25th Mn link Rd	1	166.00	0.80	1.00	132.80			
Pillayya Lt, 2nd A Rd	1	43.00	1.00	1.00	43.00			
1st main Rd	1	87.00	1.10	1.00	95.70			
Cross Road - A	2	154.00	1.10	1.00	338.80			
Cross Road - B	2	140.00	1.10	1.00	308.00			
Cross Road - C	2	136.00	1.10	1.00	299.20			
Cross Road - D	2	150.00	1.10	1.00	330.00			
Cross Road - E	2	90.00	1.10	1.00	198.00			
Cross Road - F	2	100.00	1.10	1.00	220.00			
Culvert	10	6.40	1.80	1.00	115.20			
					2080.70	**Cum**	**207.60**	**431953.32**
SRRB M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6** with OPC @ 220kgs, with rushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration cluding curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding nd centering complete as per specifications. (P.No-222,I No-27.18)								
asic rate	5115.00							
6 AW	306.90							
b Total	**5421.90**							
C Drain								
alanahalli								
5th Mn link Rd	1	166.00	0.80	0.15	19.92			
illayya Lt, 2nd A Rd	1	43.00	1.00	0.15	6.45			
st main Rd	1	87.00	1.10	0.15	14.36			
ross Road - A	2	154.00	1.10	0.15	50.82			
Cross Road - B	2	140.00	1.10	0.15	46.20			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Cross Road - C	2	136.00	1.10	0.15	44.88			
	Cross Road - D	2	150.00	1.10	0.15	49.50			
	Cross Road - E	2	90.00	1.10	0.15	29.70			
	Cross Road - F	2	100.00	1.10	0.15	33.00			
	Culvert	10	6.40	1.80	0.15	17.28			
	CC Road								
	Palanahalli								
	25th Mn link Rd	1	135.00	3.30	0.150	66.83			
	Pillayya Lt, 2nd A Rd	1	43.00	5.30	0.150	34.19			
	3rd cross	1	70.00	3.00	0.150	31.50			
	Muneshwara Temple Rd								
	Cross Road -1	1	82.00	4.80	0.150	59.04			
	Cross Road -2	1	40.00	3.00	0.150	18.00			
	Kattigenahalli								
	4th cross	1	90.00	5.40	0.150	72.90			
	Cross Road -1	1	88.00	4.40	0.150	58.08			
	Cross Road -2	1	78.00	4.50	0.150	52.65			
						705.29	**Cum**	**5421.90**	**3823984.74**
	Providing and laying **plain/reinforced cement concrete for side drains using M20** nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
	Basic rate	6670.00							
	6% AW	400.20							
	Sub Total	**7070.20**							
	CC Drain Raft								
	Palanahalli								
	25th Mn link Rd	1	166.00	0.60	0.15	14.94			
	Pillayya Lt, 2nd A Rd	1	43.00	0.75	0.15	4.84			
	1st main Rd	1	87.00	0.90	0.15	11.75			
	Cross Road - A	2	154.00	0.90	0.15	41.58			
	Cross Road - B	2	140.00	0.90	0.15	37.80			
	Cross Road - C	2	136.00	0.90	0.15	36.72			
	Cross Road - D	2	150.00	0.90	0.15	40.50			
	Cross Road - E	2	90.00	0.90	0.15	24.30			
	Cross Road - F	2	100.00	0.90	0.15	27.00			
	CC Drain Wall								
	Palanahalli								
	25th Mn link Rd	2	166.00	0.15	0.60	29.88			
	Pillayya Lt, 2nd A Rd	2	43.00	0.15	0.60	7.74			
	1st main Rd	2	87.00	0.15	0.60	15.66			
	Cross Road - A	4	154.00	0.15	0.60	55.44			
	Cross Road - B	4	140.00	0.15	0.60	50.40			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Cross Road - C	4	136.00	0.15	0.60	48.96			
	Cross Road - D	4	150.00	0.15	0.60	54.00			
	Cross Road - E	4	90.00	0.15	0.60	32.40			
	Cross Road - F	4	100.00	0.15	0.60	36.00			
						569.90			
	Culvert Raft	10	6.40	1.50	0.23	22.08			
		20	6.40	0.23	0.60	17.66			
						39.74			
						609.65	**Cum**	**7070.20**	**4310322.68**
	KSRRB M2200-6. Providing **T.M.T. steel reinforcement** for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200(I No-28.8.2,P No-229)								
	Basic rate	68233.00							
	6% AW	4093.98							
	Sub Total	**72326.98**							
	60kg/cum for drain		569.90	0.06		34.19			
	90kg/cum for drain		39.74	0.09		3.58			
						37.77	**Tn**	**72326.98**	**2731870.32**
	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M25 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Data rate	2337.00							
	For Drain								
	Palanahalli								
	25th Mn link Rd	1	166.00	0.60		99.60			
	Pillayya Lt, 2nd A Rd	1	43.00	0.75		32.25			
	1st main Rd	1	87.00	0.90		78.30			
	Cross Road - A	2	154.00	0.90		277.20			
	Cross Road - B	2	140.00	0.90		252.00			
	Cross Road - C	2	136.00	0.90		244.80			
	Cross Road - D	2	150.00	0.90		270.00			
	Cross Road - E	2	90.00	0.90		162.00			
	Cross Road - F	2	100.00	0.90		180.00			
						1596.15	**Sqm**	**2337.00**	**3730202.55**
	Providing and Fixing **pre cast covering Slab 250mm thick** made out of M25 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
	Data rate	5418.00							
	Culvert Vent	10	6.40	1.50		96.00			
						96.00	**Sqm**	**5418.00**	**520128.00**

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
7	KSRR 2 M300-14. **Excavation for roadwork** in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1km and complete as per specifications.(I No-19.14,P No-143)								
	Basic rate	41.00							
	Area Weightage 6%	2.46							
	Sub total	43.46							
	with Lead 5 km	**12.80**							
	Total	**56.26**							
	CC Road								
	Palanahalli								
	25th Mn link Rd	1	135.00	3.30	0.300	133.65			
	Pillayya Lt, 2nd A Rd	1	43.00	5.30	0.300	68.37			
	3rd cross	1	70.00	3.00	0.300	63.00			
	Muneshwara Temple Rd								
	Cross Road -1	1	82.00	4.80	0.300	118.08			
	Cross Road -2	1	40.00	3.00	0.300	36.00			
	Kattigenahalli								
	4th cross	1	90.00	5.40	0.300	145.80			
	Cross Road -1	1	88.00	4.40	0.300	116.16			
	Cross Road -2	1	78.00	4.50	0.300	105.30			
						786.36	**Cum**	**56.26**	**44,240.61**
	Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound. (P.No-176,I No-22.6.1)								
	Basic rate	4916.00							
	Area Weightage 6%	294.96							
	Total	**5210.96**							
	CC Road								
	Palanahalli								
	25th Mn link Rd	1	135.00	3.30	0.150	66.83			
	Pillayya Lt, 2nd A Rd	1	43.00	5.30	0.150	34.19			
	3rd cross	1	70.00	3.00	0.150	31.50			
	Muneshwara Temple Rd								
	Cross Road -1	1	82.00	4.80	0.150	59.04			
	Cross Road -2	1	40.00	3.00	0.150	18.00			
	Kattigenahalli								

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
4th cross	1	90.00	5.40	0.150	72.90			
Cross Road -1	1	88.00	4.40	0.150	58.08			
Cross Road -2	1	78.00	4.50	0.150	52.65			
					393.18	**Cum**	**5210.96**	**2048845.25**
							Total Construction Cost	**17641547.48**
							12% GST	**2116985.70**
							DPR & PMC Charges	**241000.00**
							Sub Total	**19999533.18**
							Miscellaneous & Rounding off	**466.82**
							GRAND TOTAL	**20000000.00**

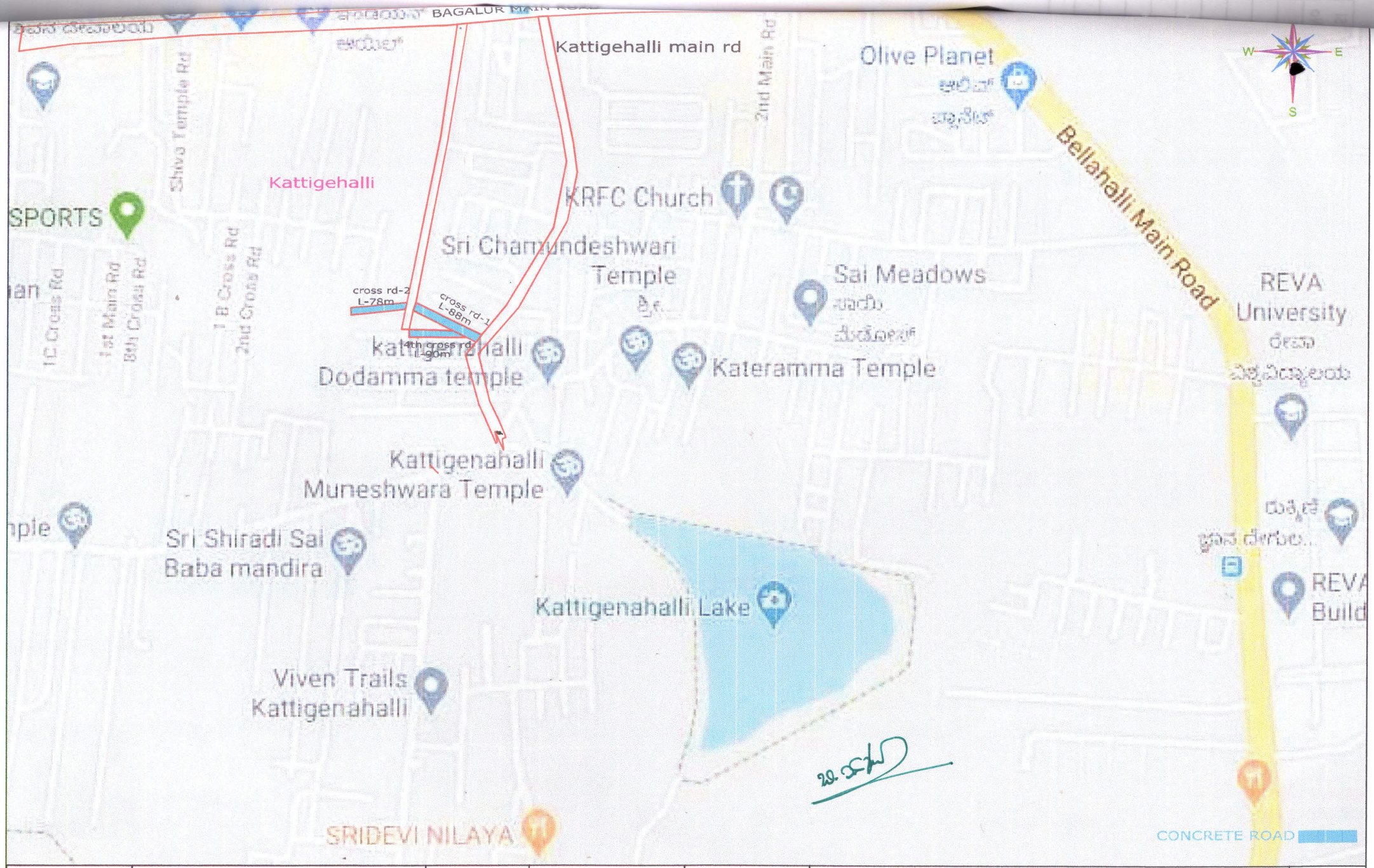
Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, Data Rates and issue rates Dated 03-01-2020

Assistant Engineer,
Ward 05

Asst. Exec. Engineer,
Dasarahalli Sub Division

Executive Engineer,
Byatarayanapura Division



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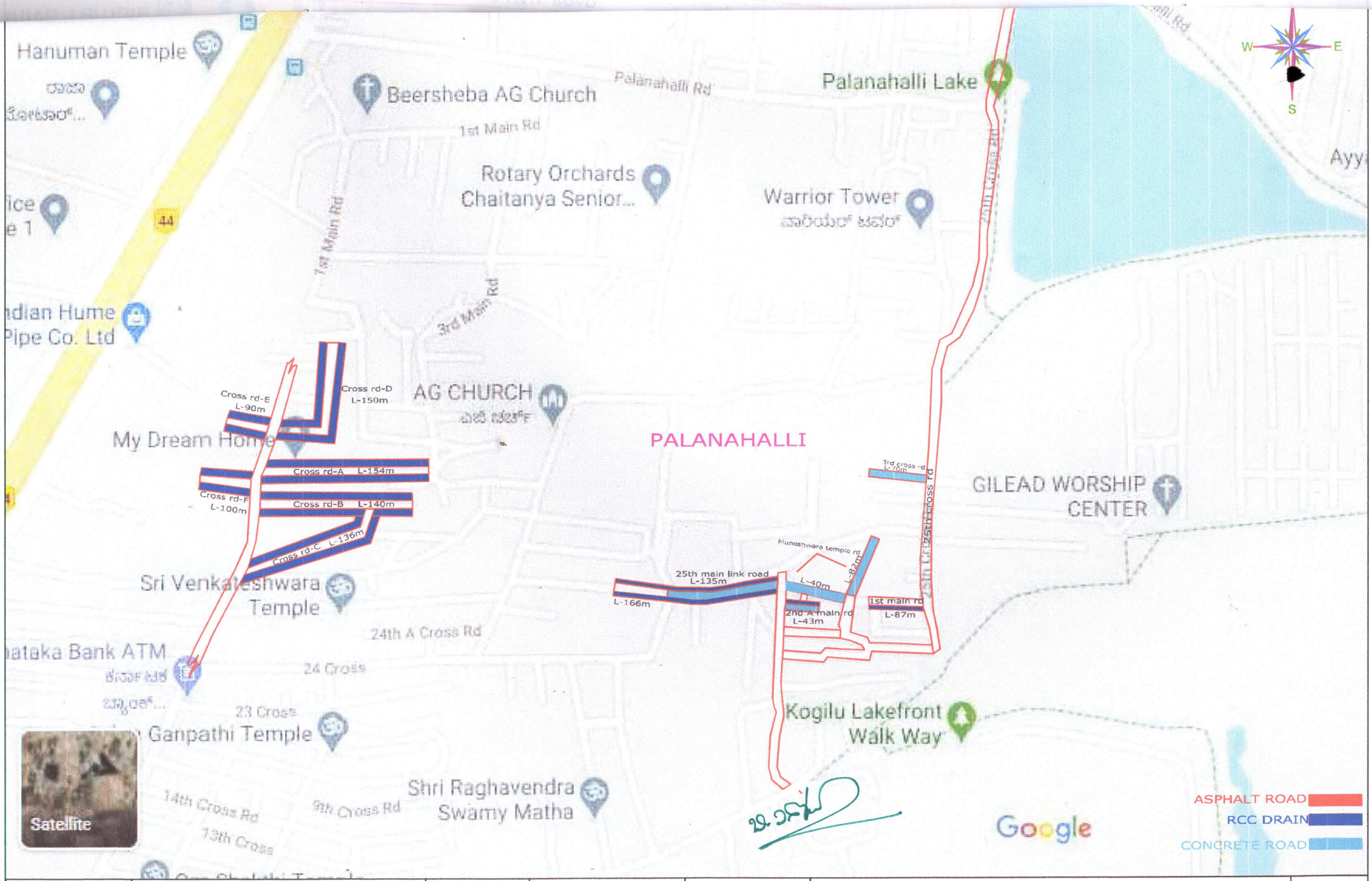

CHIEF BRUHAT BANGALORE MAHANAGARA PALIKE	CONSULTANT:- Silicon Consulting Engineers #S1317, 4th CROSS BEL 2nd STAGE BHARATH NAGAR BANGALORE 560 091. E-mail siliconcivilengineers@gmail.com				Improvements to Roads and Drains at Palanahalli and Surrounding areas in Ward no.05	